

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the applications.

Listing of Claims

1. **(original)** A polynucleotide comprising:
 - a) a first nucleic acid encoding a CD8 α -chain operably linked to nucleic acid encoding a transmembrane polypeptide; and
 - b) a second nucleic acid comprising a therapeutic gene of interest; and
 - c) at least a first transcription and translational control element for directing expression of said first and second nucleic acid.
2. **(currently amended)** The polynucleotide according to claim 1, wherein said nucleic acid encoding a CD8 α -chain has greater than 80% sequence identity to the nucleic acid encoding the human CD8 α -chain as set forth in Figure 1 (~~SEQ ID NO: 1~~) (SEQ ID NO:2).
3. **(currently amended)** The polynucleotide according to claim 1, wherein said nucleic acid encoding a CD8 α -chain has greater than 80% sequence identity to the nucleic acid encoding the mouse, rat, or porcine CD8 α -chain as set forth in Figure 1 (~~SEQ ID NOS: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100~~) (SEQ ID NOS:8, 10, 12, 14, 20 and 24).
4. **(currently amended)** The polynucleotide according to claim 3, wherein said nucleic acid encoding a CD8 α -chain comprises the mouse, rat, or porcine CD8 α -chain as set forth in Figure 1 (~~SEQ ID NOS: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100~~) (SEQ ID NOS: 8, 10, 12, 14, 20 and 24).
5. **(currently amended)** The polynucleotide according to claim 1, wherein said CD8 α -chain comprises the sequence selected from the group consisting of the sequences set forth in Figure 1 ~~SEQ ID NO: 1~~ (SEQ ID NOS:1-26).
6. **(original)** The polynucleotide according to claim 1, wherein said CD8 α -chain lacks the intracellular domain of wild-type CD8 α -chain.
7. **(original)** The polynucleotide according to claim 1, wherein said therapeutic gene of interest is selected from the group consisting of hemoglobin- β , GATA-binding protein, d-aminoevulinate synthase, glucose-6-phosphate-dehydrogenase, Coagulation Factor VIII, Coagulation Factor XI, cystic fibrosis transmembrane conductance regulator, ornithine carbamoyl transferase, α -L-iduronidase, iduronate-2-sulfatase, β -lucosidase, α -galactosidase, galactosylceramidase, acid α -glucosidase, hexamidase A, phenylalanine hydroxylase, collagen type IV, α 5, Bloom Sundrome Gene Product, and low density lipoprotein receptor.
8. **(original)** The polynucleotide according to any one of claims 1 to 7, wherein said polynucleotide comprises a vector.

9. **(original)** The polynucleotide according to claim 8, wherein said vector is selected from the group consisting of a recombinant adenovirus, a recombinant retrovirus, a recombinant adeno-associated virus, and a recombinant herpes virus.

10. **(original)** The polynucleotide according to claim 9, wherein said vector is replication defective.

11. **(original)** A composition comprising the polynucleotide according to any one of claims 1, 2, 3, 4, 5, 6 or 7, further comprising liposomes.

12. **(original)** A method for reducing immune response against antigens derived from a gene therapy delivery system comprising:

a) contacting a cell with said gene therapy delivery system, wherein said gene therapy delivery system comprises:

i) a first nucleic acid encoding a CD8 α -chain operably linked to nucleic acid encoding a transmembrane polypeptide; and

ii) a second nucleic acid comprising a therapeutic gene of interest; and

iii) at least a first transcription and translational control element for directing expression of said first and second nucleic acid, whereby said first and second nucleic acids are expressed, whereby the expressed CD8 α -chain is associated with the cell membrane of said cell, and whereby a host immune response against said cell is diminished as compared to the immune response against a cell without the CD8 α -chain encoding nucleic acid.

13. **(original)** The method according to claim 12, wherein said gene therapy delivery system is selected from the group consisting of a viral expression vector, a plasmid and a naked nucleic acid expression vector.

14. **(currently amended)** The method according to claim 13 wherein said viral expression vector is selected from the group consisting of a recombinant adenovirus, a recombinant retrovirus, a recombinant adeno-associated virus, and a recombinant herpes virus.

15. **(original)** The method according to claim 12 wherein said therapeutic gene of interest is selected from the group consisting of hemoglobin- β , GATA-binding protein, d-aminoevalinate synthase, glucose-6-phosphate-dehydrogenase, Coagulation Factor VIII, Coagulation Factor XI, cystic fibrosis transmembrane conductance regulator, ornithine carbamoyl transferase, α -L-iduronidase, iduronate-2-sulfatase, α -glucosidase, α -galactosidase, galactosylceramidase, acid β -glucosidase, hexamidase A, phenylalanine hydroxylase, collagen type IV, α 5, Bloom Syndrome Gene Product, and low density lipoprotein receptor.

16. **(currently amended)** The method according to claim 12, wherein said nucleic acid encoding CD8 α -chain comprises the sequence set forth in Figure 11 (SEQ ID NO: ~~28~~) (SEQ ID NO:28).

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17. **(currently amended)** The method according to claim 12, wherein said nucleic acid encoding CD8 α -chain encodes a protein having a sequence as set forth in Figure 10 (~~SEQ ID NO:→~~) (SEQ ID NO:27).

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AMENDMENTS TO THE DRAWINGS

The attached sheets of replacement formal drawings include changes to Figs. 3-14A-B.

Replacement Sheet 20/39, which includes Figs. 3-4, replaces the original Figs. 3-4 pages.

Replacement Sheet 21/39, which includes Figs. 5-6, replaces the original Figs. 5-6 pages.

Replacement Sheet 22/39, which includes Figs. 7-9, replaces the original Figs. 7-9 pages.

Replacement Sheets 23/39 and 24/39, which includes Figs. 10A-D, replaces the original Figs.

10A-D pages. Replacement Sheet 25/39, which includes Figs. 11A-E, replaces the original Fig.

11 page. Replacement Sheet 26/39, which includes Figs. 12-14A-B, replaces the original Figs.

12-14A-B pages.

Attachments: Thirty-nine (39) sheets of replacement formal drawings

Annotated Sheets Showing Changes (marked in red)